

REMARKS

Claims 1-22 were rejected by the Examiner under 35 U.S.C. § 103(a) as being obvious in view of the cited prior art. In response, Applicant has amended independent claim 1, which Applicant now believes is in condition for allowance.

Claim 1 was rejected by the Examiner under 35 U.S.C. § 103(a) in view of a combination of Juran (U.S. Patent No. 6,016,447), Baker, Jr. (U.S. Patent No. 4,964,407), and Mills (U.S. Patent No. 4,532,931). This ground for rejection should be withdrawn because, among other reasons, none of the cited prior art discloses analyzing the pulse width of a stimulation pulse signal to determine whether a probe is present or absent.

To establish a *Prima Facie* case of obviousness, there must be: (1) some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine references teachings; (2) a reasonable expectation of success; and (3) prior art references which teach or suggest all of the claim limitations. *See In re Kotzab*, 217 F.3d 1365, 1370 (Fed. Cir. 2000); MPEP § 2143 (8th Ed., Rev. 1). Although Juran does disclose detecting to see if a probe has been implanted, it does not disclose measuring the width of the pulse signal as in the present invention. Instead, Juran discloses that two of several possible conditions, including lead impedance, temperature, or activity level, are monitored to determine whether the probe has been implanted. *Juran*, Col. 11, Ln. 14 – Col. 12, Ln. 42. Nowhere does Juran teach, disclose, or suggest measuring the pulse width of the stimulation pulse to determine whether a probe has been implanted. Moreover, Juran, alone or in combination with the other cited references, would not motivate one to measure the pulse width because it expressly teaches measuring two of several disclosed conditions (none of which measure pulse width) to determine probe implanting.

Baker discloses a method for determining whether a probe is present using a test signal. *Baker*, Col. 4, Lns. 52-67. This test signal is a special, low-frequency pulse that can be sensed by the sensing amplifier that is delivered on test signal line 20. *Id.* The absence or presence of the probe (and whether it is functioning properly) is determined by whether any signal is detected on the test line by the amplifier after a pulse is sent. *Id.* Unlike Baker, the present invention does not rely on a special test signal to determine if the probe is implanted. Instead, the pulse width of a normal, detected stimulation pulse is analyzed to make the determination of whether the probe is implanted. Thus, Baker fail to teach or suggest measuring the pulse width of a normal stimulation pulse to determine the absence or presence of an implanted probe. Furthermore, Baker, either alone or in combination with the other references, would not motivate one of ordinary skill in the art to adopt such a system because it expressly teaches using a test signal on a test signal line (thus teaching away from measuring the pulse width of a normal stimulation pulse). MPEP § 2145 (8th Ed., Rev. 1).

It is also significant that both Juran and Baker disclose entirely different methods for determining whether a probe has been implanted. Juran determines measuring two of a number of conditions, including lead impedance, temperature, or activity level, and Baker discloses using a test signal to determine whether the probe has been implanted. Thus, there is no motivation or suggestion present in either reference to combine the reference teachings as they both disclose entirely different methods for determining whether the probe has been implanted. *See Kotzab*, 217 F.3d at 1365 (holding that there must be some teaching, suggestion, or motivation to combine or modify the teachings either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art); *In re Grasselli*, 713 F.2d 731, 743 (holding that it is improper to combine references where the references teach away

from the claimed invention); MPEP §§ 2143.01 and 2145 (8th Ed., Rev. 1). Moreover, as discussed above, even when combined the references fail to teach or suggest all of the limitations of claim 1 in the present invention. MPEP § 2143.03 (8th Ed., Rev. 1).

The Examiner also cited to Mills in combination with Juran and Baker to reject claim 1. Mills was only cited by the Examiner as disclosing a metal housing, but like Baker and Juran, it also fails to disclose measuring the pulse width of a normal stimulation pulse to determine if a probe has been implanted.

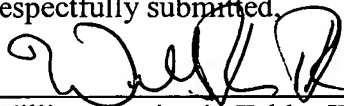
CONCLUSION

Applicant now believes that claim 1, as amended, is in condition for allowance. Because all of the remaining pending claims 3-22 (claim 2 was cancelled) depend on claim 1, Applicant believes that all of the claims pending in the application now are in condition for allowance. Reconsideration of this application in view of the foregoing remarks respectfully is requested.

The Examiner is invited to call Applicant's undersigned attorney if doing so would expedite prosecution.

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